

Storm Data and Unusual Weather Phenomena - September 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
LAKE MICHIGAN				
PT WASHINGTON TO NORTH PT LT WI COUNTY --- 0.6 N PORT WASHINGTON [43.39, -87.87]				
	09/02/10 18:44 CST	0		Marine Thunderstorm Wind (MG 36 kt)
	09/02/10 18:44 CST	0		Source: C-MAN Station
SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 0.6 N PORT WASHINGTON [43.39, -87.87]				
	09/02/10 18:44 CST	0		Marine Thunderstorm Wind (MG 36 kt)
	09/02/10 18:44 CST	0		Source: C-MAN Station
WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]				
	09/02/10 20:00 CST	0		Marine Thunderstorm Wind (MG 34 kt)
	09/02/10 20:00 CST	0		Source: C-MAN Station
A broken line of strong to severe thunderstorms affected the nearshore waters of Lake Michigan during the early evening.				
WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]				
	09/21/10 17:20 CST	0		Marine Thunderstorm Wind (MG 39 kt)
	09/21/10 17:20 CST	0		Source: C-MAN Station
A line of strong thunderstorms triggered by a passing cold front affected portions of the nearshore waters during the late afternoon and early evening.				
WISCONSIN, Southeast				
IOWA COUNTY --- 5.0 N MINERAL PT [42.92, -90.18]				
	09/02/10 16:20 CST	0		Thunderstorm Wind (EG 56 kt)
	09/02/10 16:20 CST	0		Source: Law Enforcement
Sheriff deputies reported 5 to 6 large trees were blown down by strong thunderstorm wind gusts estimated at 56 knots (65 mph) north of Mineral Point on Union Ridge.				
DANE COUNTY --- STOUGHTON [42.92, -89.22], DEERFIELD [43.05, -89.07]				
	09/02/10 17:32 CST	1K		Thunderstorm Wind (EG 56 kt)
	09/02/10 17:35 CST	0		Source: Trained Spotter
A trained spotter reported trees blown down by strong thunderstorm wind gusts estimated at 56 knots (65 mph) along a path from Stoughton to Deerfield. A 3-foot diameter tree fell on a truck in Stoughton. Damage amount is estimated.				
JEFFERSON COUNTY --- LAKE MILLS [43.08, -88.90], 2.4 E CAMBRIDGE ARPT [42.98, -88.95]				
	09/02/10 17:40 CST	0		Thunderstorm Wind (EG 56 kt)
	09/02/10 17:45 CST	0		Source: Law Enforcement
Sheriff deputies reported trees blown down by strong thunderstorm wind gusts estimated at 56 knots (65 mph) along a line from Lake Mills to Oakland Township.				
JEFFERSON COUNTY --- 1.0 N JEFFERSON [43.01, -88.80]				
	09/02/10 17:49 CST	0		Thunderstorm Wind (EG 56 kt)
	09/02/10 17:49 CST	0		Source: NWS Employee
A National Weather Service employee reported a thunderstorm wind gust estimated at 56 knots (65 mph).				
WASHINGTON COUNTY --- 1.0 NW HARTFORD [43.33, -88.39], WEST BEND [43.42, -88.18]				
	09/02/10 18:00 CST	20K		Thunderstorm Wind (EG 65 kt)
	09/02/10 18:15 CST	0		Source: Fire Department/Rescue
Fire officials reported trees blown down and damage to the roofs of two commercial buildings near Hartford by thunderstorm wind gusts estimated at 65 knots (75 mph). Damage amount is estimated.				

Storm Data and Unusual Weather Phenomena - September 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
WAUKESHA COUNTY --- 1.0 SW OCONOMOWOC [43.11, -88.49]				
	09/02/10 18:02 CST		0	Hail (0.88 in)
	09/02/10 18:02 CST		0	Source: NWS Employee
WAUKESHA COUNTY --- NASHOTAH [43.10, -88.40], SUSSEX [43.13, -88.22]				
	09/02/10 18:15 CST		0	Thunderstorm Wind (EG 70 kt)
	09/02/10 18:20 CST		0	Source: Law Enforcement
Law enforcement officials reported trees and power lines blown down by thunderstorm wind gusts estimated at 70 knots (81 mph).				
WAUKESHA COUNTY --- OCONOMOWOC [43.12, -88.48]				
	09/02/10 18:15 CST		0	Hail (0.88 in)
	09/02/10 18:15 CST		0	Source: Trained Spotter
OZAUCKEE COUNTY --- SAUKVILLE [43.38, -87.93]				
	09/02/10 18:35 CST		0	Thunderstorm Wind (EG 65 kt)
	09/02/10 18:35 CST		0	Source: Emergency Manager
The Ozaukee County Emergency Manager reported trees blown down by thunderstorm wind gusts estimated at 65 knots (75 mph). Two houses had siding damage from the gusty winds, with one home having a brick facade peeled away.				
A strong cold front swept across Wisconsin, being driven by an amplifying short wave trough moving east from the Plains, that produced a strong area of low pressure north of Lake Superior. The front interacted with a warm and unstable air mass, with CAPE values between 1500 J/kg and 2000 J/kg, bringing severe thunderstorms to southern Wisconsin in the late afternoon and early evening hours. Strong deep layer shear led to the development of a line of thunderstorms with damaging wind gusts. Heavy rain with the thunderstorms produced 1 to 2 inch per hour rainfall amounts that briefly flooded streets and parking lots, especially on the southwest side of Madison, Verona and Fitchburg in Dane County. The heavy downpours and lightning forced officials to cancel a cross country meet in DeForest, also in Dane County. There were also a few reports of near-severe nickel-sized hail.				
DODGE COUNTY --- 1.0 NE BEAVER DAM [43.48, -88.82]				
	09/06/10 05:28 CST		0	Hail (1.25 in)
	09/06/10 05:28 CST		0	Source: Law Enforcement
Sheriff deputies reported half dollar-sized hail northeast of Beaver Dam.				
JEFFERSON COUNTY --- 3.0 NE CONCORD [43.10, -88.56]				
	09/06/10 06:17 CST		0	Hail (0.88 in)
	09/06/10 06:17 CST		0	Source: NWS Employee
MILWAUKEE COUNTY --- 0.6 NW BROWN DEER [43.18, -87.98]				
	09/06/10 06:30 CST		3K	Lightning
	09/06/10 06:30 CST		0	Source: Emergency Manager
Damage to an antenna and minor electrical damage due to a lightning strike to a residence was reported by the county emergency manager.				
DODGE COUNTY --- WAUPUN [43.63, -88.73]				
	09/06/10 06:45 CST		0	Hail (1.00 in)
	09/06/10 06:45 CST		0	Source: Trained Spotter
A trained spotter reported quarter-sized hail in Waupun.				
WAUKESHA COUNTY --- 1.0 S DOWNTOWN WAUKESHA [43.01, -88.22], 1.0 SE DOWNTOWN WAUKESHA [43.01, -88.21]				
	09/06/10 07:25 CST		0	Hail (1.75 in)
	09/06/10 07:30 CST		0	Source: Amateur Radio
Amateur radio operators and the public reported hail ranging from 1 inch in diameter to 1.75 inches in diameter along a path from south of the city of Waukesha, through the city, to the southeast of downtown.				
WAUKESHA COUNTY --- 1.0 NW DOWNTOWN WAUKESHA [43.03, -88.23]				
	09/06/10 07:26 CST		0	Hail (0.75 in)
	09/06/10 07:26 CST		0	Source: Amateur Radio

Storm Data and Unusual Weather Phenomena - September 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
MILWAUKEE COUNTY --- 3.0 S DOWNTOWN MILWAUKEE [42.99, -87.97]				
	09/06/10 07:43 CST		0	Hail (0.88 in)
	09/06/10 07:43 CST		0	Source: Trained Spotter
MILWAUKEE COUNTY --- 1.0 S WEST ALLIS [42.99, -87.97]				
	09/06/10 07:45 CST		0	Hail (1.00 in)
	09/06/10 07:45 CST		0	Source: Public
The public reported 1 inch-diameter hail south of the city of West Allis.				
MARQUETTE COUNTY --- 5.0 S MONTELLO [43.73, -89.32]				
	09/06/10 08:12 CST		0	Hail (0.75 in)
	09/06/10 08:12 CST		0	Source: Trained Spotter
Early-morning, elevated thunderstorms developed on the nose of a 40-45 knot 850 mb jet under an expansive area of upper level divergence that aided the mid-level warm air advection. The thunderstorms developed to the north of a surface warm front that stretched across Iowa into northern Illinois, as the strong low level jet impinged on this front. The elevated thunderstorms produced showers of pea to dime-sized hail, with larger stones ranging from 1 inch to 1.75 inches in diameter.				
(WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z067) LAFAYETTE, (WI-Z068) GREEN, (WI-Z069) ROCK, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA				
	09/07/10 09:00 CST	1	80K	Strong Wind (MAX 48 kt)
	09/07/10 17:00 CST		0	
Direct Fatalities: M80OU				
A closed mid to upper-level low tracking across the northern U.S. took an associated surface low from the Dakotas, to Lake Superior and into southern Canada. The tight pressure gradient around this system produced strong winds across southern Wisconsin during the day. Wind gusts reached 40 to 50 mph (35 to 44 knots) in many locations. An 80 year-old Wauwatosa (Milwaukee County) man was killed in his back yard when a tree limb, estimated to weigh 1000 pounds, struck him after being blown down by the strong winds. The limb knocked the man's garage off its foundation. The highest measured wind gust reported in southern Wisconsin was 55 mph (48 knots) measured just southeast of downtown Pewaukee in Waukesha County. There were scattered reports of downed power lines due to broken tree branches falling on wires.				
DANE COUNTY --- 4.0 SW CROSS PLAINS [43.08, -89.69], 1.0 ENE MONONA [43.08, -89.30]				
	09/18/10 02:35 CST		1M	Hail (2.00 in)
	09/18/10 02:55 CST		0	Source: Trained Spotter
Trained spotters reported a 1 to 2 mile-wide swath of damage from hail showers that extended from north of Dodgeville, near Cross Plains, to just east northeast of Monona, dissipating near Interstate 90. Hundreds of vehicles were damaged; many homes had siding, window and screen damage; many trees were stripped of their leaves.				
WAUKESHA COUNTY --- 1.1 ESE MARCY [43.10, -88.11]				
	09/18/10 04:15 CST		0.10M	Lightning
	09/18/10 04:15 CST		0	Source: Newspaper
Lightning struck a house in Brookfield causing a fire in the attic. The lightning strike blew holes in the chimney and the roof of the house. Residents in the home at the time of the strike had escaped by the time firefighters arrived on the scene.				
A strong cold front was slowly sagging through southern Wisconsin during the early morning hours of September 18th. Mid-level warm advection and frontogenesis ahead of a short wave moving through the region created forcing and elevated instability, as well as strong effective deep layer shear of 40 to 50 knots, that generated elevated thunderstorms behind the surface cold front. The thunderstorms produced hail showers, turning the ground white, with hail stones up to 1 inch in diameter.				
GREEN COUNTY --- 5.0 SW BROADHEAD [42.57, -89.44], 4.3 S BROADHEAD [42.56, -89.35]				
	09/21/10 15:00 CST		0	Hail (1.00 in)
	09/21/10 15:08 CST		0	Source: Public
ROCK COUNTY --- 1.0 NNE PRAIRIE AIRPORT [42.56, -89.01], 1.3 NE PRAIRIE AIRPORT [42.56, -89.00]				

Storm Data and Unusual Weather Phenomena - September 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	09/21/10 15:00 CST		1K	Tornado (EF0, L: 0.42 mi , W: 30 yd)
	09/21/10 15:01 CST		0	Source: Amateur Radio

An isolated thunderstorm cell ahead of a broken line of strong to severe thunderstorms, generated a brief, weak tornado. A damage survey conducted by Midwest Severe Storm Tracking and Response Center verified this brief, EF0 tornado around 4.2 miles southeast of Southern Wisconsin Regional Airport (KJVL). The tornado path began just southeast of the intersection of CTH G and Walton Lane, and moved east-northeast less than 1/2 mile before dissipating east of Franklin Street. The tornado broke off 6 to 8 inch tree limbs and twisted and broke off shrubs at the ground. It also bent, and then knocked over, a 20-foot antenna that had been stabilized by guy wires. The EF rating was determined by DI27 (TH) DOD2, with estimated wind speeds of 70 to 75 mph. The exact start location is Lat. 42.56200 Lon. -89.01098. The exact end location is Lat 42.56322 Lon -89.00297. Average path width was 15 yards. The damage amount was estimated.

ROCK COUNTY --- 3.0 N BELOIT [42.56, -89.03]

09/21/10 15:25 CST	0	Thunderstorm Wind (EG 52 kt)
09/21/10 15:25 CST	0	Source: Law Enforcement

Law enforcement officials reported several trees were blown down by thunderstorm wind gusts estimated at 52 knots (60 mph).

ROCK COUNTY --- (JVL)ROCK CO ARPT JA [42.62, -89.03]

09/21/10 15:30 CST	0	Hail (0.75 in)
09/21/10 15:30 CST	0	Source: Law Enforcement

ROCK COUNTY --- 5.0 N BELOIT [42.59, -89.03]

09/21/10 15:34 CST	0	Hail (0.75 in)
09/21/10 15:34 CST	0	Source: Law Enforcement

WALWORTH COUNTY --- ALLEN GROVE [42.58, -88.77]

09/21/10 15:50 CST	0	Hail (1.00 in)
09/21/10 15:50 CST	0	Source: Law Enforcement

WALWORTH COUNTY --- DARIEN [42.60, -88.70]

09/21/10 15:57 CST	0	Hail (0.88 in)
09/21/10 15:57 CST	0	Source: Amateur Radio

WALWORTH COUNTY --- 2.0 WSW DELAVAN LAKE [42.64, -88.64]

09/21/10 15:58 CST	0	Hail (0.88 in)
09/21/10 15:58 CST	0	Source: Trained Spotter

WALWORTH COUNTY --- 2.0 NNE EAST TROY [42.81, -88.38]

09/21/10 16:09 CST	0	Hail (1.00 in)
09/21/10 16:09 CST	0	Source: Trained Spotter

RACINE COUNTY --- ROCHESTER [42.73, -88.22]

09/21/10 16:32 CST	0	Hail (0.75 in)
09/21/10 16:32 CST	0	Source: Law Enforcement

MILWAUKEE COUNTY --- 1.0 SE FRANKLIN [42.86, -88.07]

09/21/10 16:33 CST	0	Hail (1.00 in)
09/21/10 16:33 CST	0	Source: Amateur Radio

KENOSHA COUNTY --- BRISTOL [42.55, -88.05]

09/21/10 16:40 CST	0	Hail (1.75 in)
09/21/10 16:40 CST	0	Source: Law Enforcement

RACINE COUNTY --- 2.0 SSE WIND LAKE [42.80, -88.13]

09/21/10 16:40 CST	0	Thunderstorm Wind (EG 52 kt)
09/21/10 16:40 CST	0	Source: Law Enforcement

Law enforcement reported a thunderstorm wind gust estimated at 52 knots (60 mph).

Storm Data and Unusual Weather Phenomena - September 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
RACINE COUNTY --- 4.0 W CALEDONIA [42.80, -88.01]				
	09/21/10 16:45 CST		0	Thunderstorm Wind (EG 52 kt)
	09/21/10 16:45 CST		0	Source: Law Enforcement
An amateur radio operator reported a thunderstorm wind gust estimated at 52 knots (60 mph).				
RACINE COUNTY --- 4.0 W CALEDONIA [42.80, -88.01]				
	09/21/10 16:47 CST		0	Hail (1.00 in)
	09/21/10 16:47 CST		0	Source: Law Enforcement
KENOSHA COUNTY --- 2.0 SSW SILVER LAKE [42.52, -88.19]				
	09/21/10 17:02 CST		0	Thunderstorm Wind (EG 52 kt)
	09/21/10 17:02 CST		0	Source: Law Enforcement
Law enforcement officials reported several trees were blown down by thunderstorm wind gusts estimated at 52 knots (60 mph).				
A cold front moving through the region was the focus for development of a broken line of thunderstorms ahead of the front during the afternoon and evening. The combination of ascent with a short wave impulse passing over the region, daytime heating, low-level moisture inflow on a 40 knot west southwest low-level jet, and steep low to mid-level lapse rates produced severe thunderstorms with large hail and damaging wind gusts. Additionally, the storms produced a brief, EF0 tornado in Rock County, southeast of Janesville.				
(WI-Z066) MILWAUKEE, (WI-Z071) RACINE				
	09/24/10 01:00 CST		10K	Strong Wind (MAX 47 kt)
	09/24/10 05:00 CST		0	
A tight pressure gradient set up over Wisconsin as strong low pressure, located over western Nebraska on the morning of September 23rd, moved northeast to central Lake Superior on the morning of September 24th. Scattered showers that formed ahead of a trailing cold front in the early morning hours transferred momentum down to the surface from a 50 to 55 knot low level jet, located between 1,000 feet and 2,000 feet above ground level. This produced southwest wind gusts between 39 and 48 knots (45 mph and 55 mph) at a few locations in far Southeast Wisconsin. There were scattered reports of downed power lines due to broken tree branches falling on wires.				
(WI-Z052) SHEBOYGAN, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z068) GREEN, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA				
	09/24/10 11:00 CST		13K	Strong Wind (MAX 42 kt)
	09/24/10 16:00 CST		0	
A strong surface pressure gradient around a departing deep low pressure system moving from central Lake Superior to southwest Quebec, Canada produced westerly wind gusts between 39 and 43 knots (45 and 50 mph) during the afternoon hours, mainly over Southeast Wisconsin. There were scattered reports of downed power lines due to broken tree branches falling on wires.				
COLUMBIA COUNTY --- 0.2 SSW WISCONSIN DELLS [43.63, -89.77], 0.5 NNE PORTAGE [43.56, -89.45], 2.9 SSE PORTAGE [43.51, -89.43], 2.0 S WISCONSIN DELLS [43.60, -89.76]				
	09/24/10 18:00 CST		1.23M	Flood (due to Heavy Rain)
	09/30/10 05:00 CST		0.20M	Source: Official NWS Observations
The river at the gage in Portage was in flood from the evening of September 24th through the morning of September 30th, and reached a record flood level of 20.66 feet during the evening of Monday, September 27th. The old record crest at Portage was 20.50 feet on 09/14/1938. The flood waters threatened to break through a century-old earthen dike in the Civil Township of Caledonia. The waters seeped through the dike, but the dike did not fail. The potential levee failures caused voluntary evacuations and road closures along the river from the Dells to Portage. As it turned out, dozens of homes in the Blackhawk Park area just southeast of Portage were cut off when water depths reached a foot on the only road into the area. The Columbia County Emergency Management Director provided the following loss estimates: \$1 M for seasonal and full-time residential homes, \$100,000 for patching and reinforcing part of a 14-mile earthen berm/dike, \$50,000 for gravel shoulder washouts, \$75,000 to a wastewater treatment plant, and \$200,000 to bottomland crops. It was postulated that damage was limited due to the fact that the flood waters rose slowly which reduced the erosional power of water. The EM Director also noted that the Wisconsin River levels in Portage were about a foot higher than that experienced in the Great Flood of 1993, while at Wisconsin Dells the 2010 level was about a foot lower than that experienced in 1993.				
Even though heavy rains didn't fall in the surrounding area, record river levels occurred on the Wisconsin River near Portage. A potent, early-fall, storm brought waves of heavy rain to western and central Wisconsin, well upstream from Portage, beginning late on Wednesday, September 22nd and continuing into early Friday, September 24th. Two-day rainfall totals of 4 to 8 inches across the Wisconsin River basin over those parts of Wisconsin resulted in flooding in the river basin from Sauk County near the Wisconsin Dells downstream through Columbia County.				

Storm Data and Unusual Weather Phenomena - September 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------